Circutor

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Page 1 of 6

402-VT5A-90B10

402-VT5A-90B10, Three-phase energy meter indirect connection

Code: QBL10   DESCATALOGADO

> Type Consumer: 1
> Communications: RS-232 | RS-485
> Class (Active/Reactive): 0.2S/0.5
> System: Three-phase
> Measure: Indirect
> Measurement Range (V): 3x57/100 ... 3x230/400
> Measurement Range (A): .../5
> Quadrants: 4
> Frequency (Hz): 50

Description

The CIRWATT-B502 is an indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy and Class 0.5 for reactive energy as per IEC-62053-23. It offers multiple communication options and expansion modules, allowing it to adapt to large industrial installations.

Application

CIRWATT B-502 is ideal for medium-voltage supplies using external voltage and current transformers. Offering solutions for large industries with a power capacity over 10 MW (Consumer type 1). Available in 2 quadrants for energy consumption or 4 quadrants for photovoltaic plants (energy generation and consumption).

402-VT5A-90B10

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Code: QBL10

Specifications

AC power supply

Tolerance	80 % ... 115 % Un
Consumption	< 2 W; < 10 VA
Frequency	50 / 60 Hz
Nominal voltage	3 x 57 (100) V... 3 x 230 (400) V

Battery specification

Performance-guarantee	> 20 years @ 30 °C
Type	Lithium

Mechanical characteristics

Size (mm) width x height x depth	172 x 255 x 67 (mm)
Envelope	DIN 43859
Weight (kg)	1,23

Environmental characteristics

Relative humidity (without condensation)	95 % max.
Storage temperature	-40 ... +85 °C
Working temperature	-25 ... +70 °C

Voltage measurement circuit

Connection	Asymmetrical
Consumption	< 2 W; 10 VA
Nominal frequency	50 / 60 Hz
Nominal voltage	3x57/100 ... 3x230/400 V

Current measurement circuit

Consumption	< 0,1 V·A
Reference current (Iref)	.../ 5 A
Maximum current	10 A
Minimum current measurement	< 0,5 x Itr

Optical communication interface

Hardware	IEC 62056-21
Protocol	REE, based on IEC 870-5-158
Type	Serial;bi-directional

User interface

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Page 3 of 6

402-VT5A-90B10

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Code: QBL10

Resolution of the display	up to 8 digits (8 mm)
Display type	LCD

Memory

Memory capacity	Data: non-volatile memory, Setup and events: serial-flash
Write time	4000
Type	Serial flash

Standards

Standards	UNE-EN 50470-1 Electricity metering equipment (a.c.) -- Part 1: General requirements, tests and test conditions - Metering equipment -class indexes B-) UNE-EN 50470-3 Electricity metering equipment (a.c.) -- Part 3: Particular requirements - Static meters for active energy -class indexes B-) IEC 62052-11, IEC 62053-21, IEC 62053-22 (Standards for static active energy meters for alternating current of class 0.2s, 0.5s) UNE-EN 55022 (Conducted Emissions: Class B, Radiated Emissions: Class B) UNE-EN 61000-4-2, UNE-EN 61000-4-3, UNE-EN 61000-4-4, UNE-EN 61000-4-5, UNE-EN 61000-4-6, UNE-EN 61000-4-8, UNE-EN 61000-4-11

PLC

Hardware	CENELEC A or CENELEC B
Protocol	CirPLC & PEP (PLC Encapsulated Protocol)
Modulation system	DSCK with repeater system

Measurement accuracy

Reactive energy measurement (kvarh)	IEC 62053-23 (Class 0,5 / 1 / 2)
Active energy measurement (kWh)	IEC 62053-22 (Class 0,2S)

Features / performance

Billing closures	12 locks per contract. Programable date and hour
Load curve	2 load curves, programmable integration time (1 ... 253 min)
Optional	Communications: RS-232 / PLC ,RS-485 / PLC, RS-232 / RS-232 , RS-485 / RS-485, RS-232 / RS-485, RS-232 / Ethernet, R-485 / Ethernet. Expansion boards: No inputs / outputs, 4 relay outputs (Rate Indicator), 2 relay inputs / 4 pulse outputs, 4 pulse inputs, Differential current measurement, 2 relay outputs / 2 pulse outputs, / 2 pulse inputs
Tariff programming	12 days 10 types of data 9 types of tariffs 30 public holidays 12 special days

Clock

Source	Temperature compensated oscillator
Accuracy (EN 61038)	< 0,5 s / day (23 °C)
Type	Gregorian calendar

402-VT5A-90B10

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Code: QBL10

CIRWATT B 502

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

CODE	TYPE	Measurement Range (V)	Measurement Range (A)	Communications	Class (Active/Reactive)	System	Measure	Impulse output	Quadrants	Entrada cambio tarifa
CIRWATT B 410T										
QB860	410-QT5A-70B10	3x230/400	.../5	RS-232 | RS-232	B (1) / 2	Three-phase	Indirect			
QBH30	410-MT5A-90B10	3x63,5/110	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBH40	410-MT5A-A0B10	3x63,5/110	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBH50	410-MT5A-C0B10	3x63,5/110	.../5	RS-485 | Ethernet	B (1) / 2	Three-phase	Indirect			
QB870T23	410-QT5A-90B10-TRMC210-500-3.0.TD	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QB870T22	410-QT5A-90B10-TRMC210-200-3.0.TD	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QB870T21	410-QT5A-90B10-TRMC210-100-3.0.TD	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QB8A0	410-QT5A-80B10	3x230/400	.../5	RS-485 | RS-485	B (1) / 2	Three-phase	Indirect			
QB870	410-QT5A-90B10	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBG60	410-NT5A-70B10	3x127/220	.../5	RS-232 | RS-232	B (1) / 2	Three-phase	Indirect			
QB880	410-QT5A-A0B10	3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBGA0	410-NT5A-80B10	3x127/220	.../5	RS-485 | RS-485	B (1) / 2	Three-phase	Indirect			
QBG70	410-NT5A-90B10	3x127/220	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBG80	410-NT5A-A0B10	3x127/220	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QB890	410-QT5A-C0B10	3x230/400	.../5	RS-485 | Ethernet	B (1) / 2	Three-phase	Indirect			
QB8D0	410-QT5B-90B10	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBG90	410-NT5A-C0B10	3x127/220	.../5	RS-485 | Ethernet	B (1) / 2	Three-phase	Indirect			
QB8E0	410-QT5B-A0B10	3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBH20	410-MT5A-70B10	3x63,5/110	.../5	RS-232 | RS-232	B (1) / 2	Three-phase	Indirect			
QBN0B	410-QT7A-90B10	3x230/400	.../1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBN1B	410-QT7A-A0B10	3x230/400	.../1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBN2B	410-QT7B-90B10	3x230/400	.../1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBH61	410-MT5A-80B10	3x63,5/110	.../5	RS-485 | RS-485	B (1) / 2	Three-phase	Indirect			
QBN3B	410-QT7B-A0B10	3x230/400	.../1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBJ10	410-VT5A-90B10	3x57/100 ... 3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBJ20	410-VT5A-A0B10	3x57/100 ... 3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBJ60	410-VT5B-90B10	3x57/100 ... 3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBJ70	410-VT5B-A0B10	3x57/100 ... 3x230/400	.../5	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBN2J	410-VT7B-90B10	3x57/100 ... 3x230/400	.../1	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
QBN3J	410-VT7B-A0B10	3x57/100 ... 3x230/400	.../1	RS-232 | Ethernet	B (1) / 2	Three-phase	Indirect			
QBN40	410-VT7B-A0B10	3x57/100 ... 3x230/400	.../1	RS-232 | Ethernet	C (0,5S)/1	Three-phase	Indirect			
CIRWATT B 410D										
QB4A0	410-QD1A-70B10	3x230/400	10 (100)	RS-232 | RS-232	B (1) / 2	Three-phase	Direct			
QB4B0	410-QD1A-90B10	3x230/400	10 (100)	RS-232 | RS-485	B (1) / 2	Three-phase	Direct			
QB4E0	410-QD1A-80B10	3x230/400	10 (100)	RS-485 | RS-485	B (1) / 2	Three-phase	Direct			
QB4C0	410-QD1A-A0B10	3x230/400	10 (100)	RS-232 | Ethernet	B (1) / 2	Three-phase	Direct			
QB4D0	410-QD1A-C0B10	3x230/400	10 (100)	RS-485 | Ethernet	B (1) / 2	Three-phase	Direct			
QB4H0	410-QD1B-90B10	3x230/400	10 (100)	RS-232 | RS-485	B (1) / 2	Three-phase	Direct			
QB4I0	410-QD1B-A0B10	3x230/400	10 (100)	RS-232 | Ethernet	B (1) / 2	Three-phase	Direct			
QB7A0	410-ND1A-70B10	3x127/220	10 (100)	RS-232 | RS-232	B (1) / 2	Three-phase	Direct			

Creation date: 09/04/2026 - CIRCUTOR, SAU reserves the right to make technical changes or modify the content/images of this document without prior notice, in order to improve its reliability, functionality, design or for other reasons.
It accepts no liability for any errors, inaccuracies or possible lack of information in this document.

Page 4 of 6

402-VT5A-90B10

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Code: QBL10

CODE	TYPE	Measurement Range (V)	Measurement Range (A)	Communications	Class (Active/Reactive)	System	Measure	Impulse output	Quadrants	Entrada cambio tarifa
QB7B0	410-ND1A-90B10	3x127/220	10 (100)	RS-232 | RS-485	B (1) / 2	Three-phase	Direct			
QB7E0	410-ND1A-80B10	3x127/220	10 (100)	RS-485 | RS-485	B (1) / 2	Three-phase	Direct			
QB7C0	410-ND1A-A0B10	3x127/220	10 (100)	RS-232 | Ethernet	B (1) / 2	Three-phase	Direct			
QB7D0	410-ND1A-C0B10	3x127/220	10 (100)	RS-485 | Ethernet	B (1) / 2	Three-phase	Direct			
QB4B0D60	410-QD1A-90B10-TRIPLE TARIFA-3.0TD	3x230/400	10 (100)	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
CIRWATT B 505										
QBP1E	405-MT5A-90B10	3x63,5/110	.../5	RS-232 | RS-485	C (0,5S)/1	Three-phase	Indirect			
QBP1F	405-MT5A-A0B10	3x63,5/110	.../5	RS-232 | Ethernet	C (0,5S)/1	Three-phase	Indirect			
QBP1K	405-MT5A-C0B10	3x63,5/110	.../5	RS-485 | Ethernet	C (0,5S)/1	Three-phase	Indirect			
QBP1I	405-MT5A-70B10	3x63,5/110	.../5	RS-232 | RS-232	C (0,5S)/1	Three-phase	Indirect			
QBP1J	405-MT5A-80B10	3x63,5/110	.../5	RS-485 | RS-485	C (0,5S)/1	Three-phase	Indirect			
QBK10	405-VT5A-90B10	3x57/100 ... 3x230/400	.../5	RS-232 | RS-485	C (0,5S)/1	Three-phase	Indirect			
QBK20	405-VT5A-A0B10	3x57/100 ... 3x230/400	.../5	RS-232 | Ethernet	C (0,5S)/1	Three-phase	Indirect			
QBK30	405-VT5A-C0B10	3x57/100 ... 3x230/400	.../5	RS-485 | Ethernet	C (0,5S)/1	Three-phase	Indirect			
QBN00	405-VT7A-90B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | RS-485	C (0,5S)/1	Three-phase	Indirect			
QBN10	405-VT7A-A0B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | Ethernet	C (0,5S)/1	Three-phase	Indirect			
QBN30	405-VT7B-90B10	3x57/100 ... 3x230/400	.../ 1	RS-232 | RS-485	C (0,5S)/1	Three-phase	Indirect			
QBK10T24	405-VT5A-90B10-TRMC400-1000-3.0.2	3x230/400	.../5	RS-232 | RS-485	B (1) / 2	Three-phase	Indirect			
CIRWATT B 502										
QBP1Q	402-MT5A-80B10	3x63,5/110	.../5	RS-485 | RS-485	0.2S/0.5	Three-phase	Indirect			
QBP1B	402-MT5A-A0B10	3x63,5/110	.../5	RS-232 | Ethernet	0.2S/0.5	Three-phase	Indirect			
QBP1A	402-MT5A-90B10	3x63,5/110	.../5	RS-232 | RS-485	0.2S/0.5	Three-phase	Indirect			
QBP1C	402-MT5B-90B10	3x63,5/110	.../5	RS-232 | RS-485	0.2S/0.5	Three-phase	Indirect			
QBP1D	402-MT5B-A0B10	3x63,5/110	.../5	RS-232 | Ethernet	0.2S/0.5	Three-phase	Indirect			
QBP1P	402-MT5A-70B10	3x63,5/110	.../5	RS-232 | RS-232	0.2S/0.5	Three-phase	Indirect			
QBP1R	402-MT5A-C0B10	3x63,5/110	.../5	RS-485 | Ethernet	0.2S/0.5	Three-phase	Indirect			
CIRWATT B102										
QBMD3	212-ES7A-21B20	230	5 (65)	RS-485 (Modbus/RTU)	B (1) / 2			1	Abs.	0
QBMD5	212-ES7A-23B20	230	5 (65)	RS-485 (Modbus/RTU)	B (1) / 2			0	Abs.	0
QBMD7	212-ES7A-2EB20	230	5 (65)	RS-485 (Modbus/RTU)	B (1) / 2			0	Abs.	1

Please contact us for other configurations (Inputs, outputs and other communications)

Circutor

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy
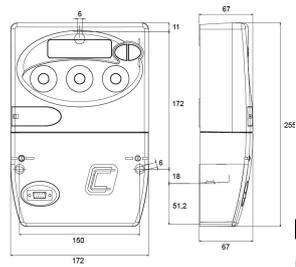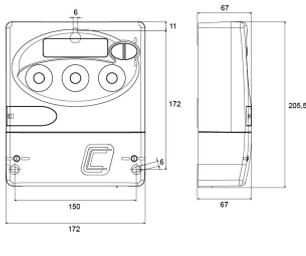
Page 6 of 6

402-VT5A-90B10

Indirect three-phase meter, recorder, and multi-tariff device, classified as Class 0.2s as per IEC-62053-22 for active energy

Code: QBL10

Dimensions

Connections